Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

Claim 1. (Presently Amended). An antimicrobial peptide, comprising a periodic peptide with repeating identical monomer units of ~~2,~~ 3 or 4 residues:

a. wherein the antimicrobial peptide has a minimum length of ~~4~~ 14 residues; and

b. wherein the repeating identical monomer units are selected from the group consisting of PPPN, PPNP, PNPP, NPPP, PNNN, NPNN, NNPN, NNNP, NPN, PNN, and NNP, where P is a cationic residue selected from the group consisting of lysine, ornathine, and arginine residues, wherein P is the same or a different residue within the monomer, and N is a hydrophobic residue selected from the group consisting of alanine, phenylalanine, glycine, leucine, isoleucine, threonine, tyrosine, tryptophan, valine, and methionine residues, wherein N is the same or a different residue within the monomer ~~has 25%-75% cationic residues, and the remaining residues are hydrophobic residues and wherein the antimicrobial peptide has an IC50 of $\leq$ 125 µg/ml~~.

Claim 2. (Original). The antimicrobial peptide of claim 1, wherein the antimicrobial peptide has maximum length of 80 residues and a minimum length of 14 residues.

Claim 3. (Cancelled).

Claim 4. (Presently Amended). The antimicrobial peptide of claim 1, wherein ~~the hydrophobic residues have bulky side chains~~ N is an amino acid with a bulky side chain selected from the group consisting of phenylalanine, isoleucine, threonine, tyrosine, and valine.

Claim 5. (Presently Amended). The antimicrobial peptide of claim 1, wherein the antimicrobial peptide has biocidal activity of $\leq$ 125 ppm, for 3.5 log kill at 24 hr in a high throughput

microanalysis and rapid quantitation assay against a microbe selected from the group consisting of bacteria, yeast, and fungi.

Claim 6. (Presently Amended). The antimicrobial peptide of claim 1, wherein the antimicrobial peptide has antiviral activity of $\leq$ 125 ppm for 3.5 log kill at 24 hr in a reverse transcriptase activity assay against a virus.

Claim 7-15. (Cancelled).

Claim 16. (Presently Amended). A peptide comprising a sequence selected from the group consisting of SEQ ID NOs: ~~1-56~~ 1-14, 19-23, 29-41, 45, 47, and 51-56.

Claim 17. (Presently Amended). A peptide consisting essentially of a sequence selected from the group consisting of SEQ ID NOs: ~~1-56~~ 1-14, 19-23, 29-43, 45, 47, and 51-56.

Claim 18. (Presently Amended). A peptide consisting of a sequence selected form the group consisting of SEQ ID NOs: ~~1-56~~ 1-14, 19-23, 29-43, 45, 47, and 51-56.

Claim 19. (Presently Amended). A pharmaceutical composition comprising a peptide in any one of claims ~~1-18~~ 1-6 or 16-18 and a pharmaceutical carrier.

Claim 20. (Cancelled).

Claim 21 (Presently Amended). A process for inhibiting growth of a target cell comprising administering to a target cell a periodic antimicrobial peptide ~~in any one of claims 1-18~~ comprising a periodic peptide with repeating identical monomer units of 3 or 4 residues:

a. wherein the antimicrobial peptide has a minimum length of 14 residues; and
b. wherein the repeating identical monomer units are selected from the group consisting of NPPN, PPNN, PNNP, NNPP, PPPN, PPNP, PNPP, NPPP, PNNN, NPNN, NNPN, NNNP, NPN, PNN, and NNP, where P is a cationic residue

selected from the group consisting of lysine, ornathine, and arginine residues, wherein P is the same or a different residue within the monomer, and N is a hydrophobic residue selected from the group consisting of alanine, phenylalanine, glycine, leucine, isoleucine, threonine, tyrosine, tryptophan, valine, and methionine residues, wherein N is the same or a different residue within the monomer,

wherein the target cell is selected from the group consisting of bacteria, yeast, fungi, and the peptide is administered in an amount effective to inhibit growth of said target cell.

Claim 22. (Presently Amended). A process for killing a target cell comprising administering to a target cell a periodic antimicrobial peptide ~~in any one of claims 1-18~~ comprising a periodic peptide with repeating identical monomer units of 3 or 4 residues:

a. wherein the antimicrobial peptide has a minimum length of 14 residues; and

b. wherein the repeating identical monomer units are selected from the group consisting of NPPN, PPNN, PNNP, NNPP, PPPN, PPNP, PNPP, NPPP, PNNN, NPNN, NNPN, NNNP, NPN, PNN, and NNP, where P is a cationic residue selected from the group consisting of lysine, ornathine, and arginine residues, wherein P is the same or a different residue within the monomer, and N is a hydrophobic residue selected from the group consisting of alanine, phenylalanine, glycine, leucine, isoleucine, threonine, tyrosine, tryptophan, valine, and methionine residues, wherein N is the same or a different residue within the monomer,

wherein the target cell is selected from the group consisting of bacteria, yeast, fungi, and the peptide is administered in an amount effective to kill said target cell.

Claim 23. (New). The process of claim 21, wherein N is an amino acid with a bulky side chain selected from the group consisting of phenylalanine, isoleucine, threonine, tyrosine, and valine.

Claim 24. (New). The process of claim 21, wherein the peptide is selected from the group consisting of Seq. ID. No. 1-23 and 33-41.

Claim 25. (New). The process of claim 21, wherein the peptide is selected from the group consisting of PNNN, NPNN, NNPN, and NNNP.

Claim 26. (New). The process of claim 21, wherein the peptide is selected from the group consisting of NPN, PNN, and NNP.

Claim 27. (New). The process of claim 22, wherein N is an amino acid with a bulky side chain selected from the group consisting of phenylalanine, isoleucine, threonine, tyrosine, and valine.

Claim 28. (New). The process of claim 22, wherein the peptide is selected from the group consisting of Seq. ID. No. 1-23 and 33-41.

Claim 29. (New). The process of claim 22, wherein the peptide is selected from the group consisting of PNNN, NPNN, NNPN, and NNNP.

Claim 30. (New). The process of claim 22, wherein the peptide is selected from the group consisting of NPN, PNN, and NNP.

Claim 31. (New). The antimicrobial peptide of claim 1, wherein the antimicrobial peptide has an IC50 of $\leq$ 125 μg/ml in a broth micro-dilution assay against a microbe selected from the group consisting of bacteria, yeast, and fungi.

Claim 32. (New). The antimicrobial peptide of claim 1, wherein the antimicrobial peptide is selected from the group consisting of PNNN, NPNN, NNPN, and NNNP.

Claim 33. (New). The antimicrobial peptide of claim 1, wherein the antimicrobial peptide is selected from the group consisting of NPN, PNN, and NNP.

Claim 34. (New). An antimicrobial peptide, comprising a periodic peptide with repeating identical monomer units of 3 amino acid residues:

a. wherein the antimicrobial peptide has a minimum length of 30 residues; and
b. wherein the repeating identical monomer units are selected from the group consisting of PNP, NPP, PPN, NPN, PNN, and NNP, where P is a cationic residue selected from the group consisting of lysine, ornathine, and arginine residues, wherein P is the same or a different residue within the monomer, and N is a hydrophobic residue selected from the group consisting of alanine, phenylalanine, glycine, leucine, isoleucine, threonine, tyrosine, tryptophan, valine, and methionine residues, wherein N is the same or a different residue within the monomer.

Claim 35. (New). The antimicrobial peptide of claim 34, wherein the antimicrobial peptide has a maximum length of 80 residues.

Claim 36. (New). The antimicrobial peptide of claim 34, wherein N is an amino acid with a bulky side chain selected from the group consisting of phenylalanine, isoleucine, threonine, tyrosine, and valine.

Claim 37. (New). The antimicrobial peptide of claim 34, wherein the antimicrobial peptide has biocidal activity of $\leq$ 125 ppm, for 3.5 log kill at 24 hr in a high throughput microanalysis and rapid quantitation assay against a microbe selected from the group consisting of bacteria, yeast, and fungi.

Claim 38. (New). The antimicrobial peptide of claim 34, wherein the antimicrobial peptide has antiviral activity of $\leq$ 125 ppm for 3.5 log kill at 24 hr in a reverse transcriptase activity assay against a virus.

Claim 39. (New). The antimicrobial peptide of claim 34, wherein the antimicrobial peptide has an IC50 of $\leq$ 125 μg/ml in a broth micro-dilution assay against a microbe selected from the group consisting of bacteria, yeast, and fungi.

Claim 40. (New). An antimicrobial peptide, comprising a periodic peptide with repeating identical monomer units of 2 residues:

a. wherein the antimicrobial peptide has a minimum length of 18 residues; and
b. wherein the repeating identical monomer units are selected from the group consisting of PN and NP, where P is arginine, and N is a hydrophobic residue selected from the group consisting of alanine, phenylalanine, glycine, leucine, isoleucine, threonine, tyrosine, tryptophan, valine, and methionine residues.

Claim 41. (New). The antimicrobial peptide of claim 40, wherein the antimicrobial peptide has maximum length of 80 residues.

Claim 42. (New). The antimicrobial peptide of claim 40, wherein N is an amino acid with a bulky side chain selected from the group consisting of phenylalanine, isoleucine, threonine, tyrosine, and valine.

Claim 43. (New). The antimicrobial peptide of claim 40, wherein the antimicrobial peptide has biocidal activity of $\leq$ 125 ppm, for 3.5 log kill at 24 hr in a high throughput microanalysis and rapid quantitation assay against a microbe selected from the group consisting of bacteria, yeast, and fungi.

Claim 44. (New). The antimicrobial peptide of claim 40, wherein the antimicrobial peptide has antiviral activity of $\leq$ 125 ppm for 3.5 log kill at 24 hr in a reverse transcriptase activity assay against a virus.

Claim 45. (New). An antimicrobial peptide, comprising a periodic peptide with repeating identical monomer units of 2 residues:

a. wherein the antimicrobial peptide has a minimum length of 18 residues; and
b. wherein the repeating identical monomer units are selected from the group consisting of PN and NP, wherein P is a cationic residue selected from the group consisting of lysine, ornathine, and arginine residues, and N is a hydrophobic residue selected from

the group consisting of alanine, phenylalanine, glycine, isoleucine, threonine, tyrosine, tryptophan, valine, and methionine residues.

Claim 46. (New). The antimicrobial peptide of claim 45, wherein the antimicrobial peptide has maximum length of 80 residues.

Claim 47. (New). The antimicrobial peptide of claim 45, wherein N is an amino acid with a bulky side chain selected from the group consisting of phenylalanine, isoleucine, threonine, tyrosine, and valine.

Claim 48. (New). The antimicrobial peptide of claim 45, wherein the antimicrobial peptide has biocidal activity of $\leq$ 125 ppm, for 3.5 log kill at 24 hr in a high throughput microanalysis and rapid quantitation assay against a microbe selected from the group consisting of bacteria, yeast, and fungi.

Claim 49. (New). The antimicrobial peptide of claim 45, wherein the antimicrobial peptide has antiviral activity of $\leq$ 125 ppm for 3.5 log kill at 24 hr in a reverse transcriptase activity assay against a virus.

Claim 50. (New). A process for inhibiting growth of a target cell comprising administering to a target cell a periodic antimicrobial peptide comprising a periodic peptide with repeating identical monomer units of 3 residues:

a. wherein the antimicrobial peptide has a minimum length of 30 residues;
b. wherein the repeating identical monomer units are selected from the group consisting of PNP, NPP, PPN, NPN, PNN, and NNP, where P is a cationic residue selected from the group consisting of lysine, ornathine, and arginine residues, wherein P is the same or a different residue within the monomer, and N is a hydrophobic residue selected from the group consisting of alanine, phenylalanine, glycine, leucine, isoleucine, threonine, tyrosine, tryptophan, valine, and

methionine residues, wherein N is the same or a different residue within the monomer; and

wherein the target cell is selected from the group consisting of bacteria, yeast, fungi, and the peptide is administered in an amount effective to inhibit growth of said target cell.

Claim 51. (New). The process of claim 50, wherein N is an amino acid with a bulky side chain selected from the group consisting of phenylalanine, isoleucine, threonine, tyrosine, and valine.

Claim 52. (New). The process of claim 50, wherein the peptide is selected from the group consisting of Seq. ID. No. 29-41 and 54-56.

Claim 53. (New). A process for killing a target cell comprising administering to a target cell a periodic antimicrobial peptide comprising a periodic peptide with repeating identical monomer units of 3 residues:

a. wherein the antimicrobial peptide has a minimum length of 30 residues;
b. wherein the repeating identical monomer units are selected from the group consisting of PNP, NPP, PPN, NPN, PNN, and NNP, where P is a cationic residue selected from the group consisting of lysine, ornathine, and arginine residues, wherein P is the same or a different residue within the monomer, and N is a hydrophobic residue selected from the group consisting of alanine, phenylalanine, glycine, leucine, isoleucine, threonine, tyrosine, tryptophan, valine, and methionine residues, wherein N is the same or a different residue within the monomer; and

wherein the target cell is selected from the group consisting of bacteria, yeast, fungi, and the peptide is administered in an amount effective to kill said target cell.

Claim 54. (New). The process of claim 53, wherein N is an amino acid with a bulky side chain selected from the group consisting of phenylalanine, isoleucine, threonine, tyrosine, and valine.

Claim 55. (New). The process of claim 53, wherein the peptide is selected from the group consisting of Seq. ID. No. 29-41 and 54-56.

Claim 56. (New). A process for inhibiting growth of a target cell comprising administering to a target cell an antimicrobial peptide comprising a periodic peptide with repeating identical monomer units of 2 residues:

a. wherein the antimicrobial peptide has a minimum length of 18 residues; and
b. wherein the repeating identical monomer units are selected from the group consisting of PN and NP, where P is arginine, and N is a hydrophobic residue selected from the group consisting of alanine, phenylalanine, glycine, leucine, isoleucine, threonine, tyrosine, tryptophan, valine, and methionine residues,

wherein the target cell is selected from the group consisting of bacteria, yeast, fungi, and the peptide is administered in an amount effective to inhibit growth of said target cell.

Claim 57. (New). The process of claim 56, wherein N is an amino acid with a bulky side chain selected from the group consisting of phenylalanine, isoleucine, threonine, tyrosine, and valine.

Claim 58. (New). The process of claim 56, wherein the peptide is selected from the group consisting of Seq. ID. No. 52 and 53.

Claim 59. (New). A process for killing a target cell comprising administering to a target cell an antimicrobial peptide comprising a periodic peptide with repeating identical monomer units of 2 residues:

a. wherein the antimicrobial peptide has a minimum length of 18 residues; and
b. wherein the repeating identical monomer units are selected from the group consisting of PN and NP, where P is arginine, and N is a hydrophobic residue selected from the group consisting of alanine, phenylalanine, glycine, leucine, isoleucine, threonine, tyrosine, tryptophan, valine, and methionine residues,

wherein the target cell is selected from the group consisting of bacteria, yeast, fungi, and the peptide is administered in an amount effective to kill said target cell.

Claim 60. (New). The process of claim 59, wherein N is an amino acid with a bulky side chain selected from the group consisting of phenylalanine, isoleucine, threonine, tyrosine, and valine.

Claim 61. (New). The process of claim 59, wherein the peptide is selected from the group consisting of Seq. ID. No. 52 and 53.

Claim 62. (New). A process for inhibiting growth of a target cell comprising administering to a target cell an antimicrobial peptide comprising a periodic peptide with repeating identical monomer units of 2 residues:

a. wherein the antimicrobial peptide has a minimum length of 18 residues; and
b. wherein the repeating identical monomer units are selected from the group consisting of PN and NP, wherein P is a cationic residue selected from the group consisting of lysine, ornathine, and arginine residues, and N is a hydrophobic residue selected from the group consisting of alanine, phenylalanine, glycine, isoleucine, threonine, tyrosine, tryptophan, valine, and methionine residues;

wherein the target cell is selected from the group consisting of bacteria, yeast, fungi, and the peptide is administered in an amount effective to inhibit growth of said target cell.

Claim 63. (New). The process of claim 62, wherein N is an amino acid with a bulky side chain selected from the group consisting of phenylalanine, isoleucine, threonine, tyrosine, and valine.

Claim 64. (New). A process for killing a target cell comprising administering to a target cell an antimicrobial peptide comprising a periodic peptide with repeating identical monomer units of 2 residues:

a. wherein the antimicrobial peptide has a minimum length of 18 residues; and
b. wherein the repeating identical monomer units are selected from the group consisting of PN and NP, wherein P is a cationic residue selected from the group consisting of lysine, ornathine, and arginine residues, and N is a hydrophobic residue selected from

the group consisting of alanine, phenylalanine, glycine, isoleucine, threonine, tyrosine, tryptophan, valine, and methionine residues;

wherein the target cell is selected from the group consisting of bacteria, yeast, fungi, and the peptide is administered in an amount effective to kill said target cell.

Claim 65. (New). The process of claim 64, wherein N is an amino acid with a bulky side chain selected from the group consisting of phenylalanine, isoleucine, threonine, tyrosine, and valine.